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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,241	08/28/2003	Mehul Patel	1400-49 (1622)	7185

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EXAMINER

LE, THIEN MINH

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/650,241

Applicant(s)

PATEL, MEHUL



Examiner

Thien M. Le

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 13-17 and 19-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-17, 19-23, 26-33, 37-41, 43-52 is/are rejected.
- 7) ☒ Claim(s) 24, 34-36 and 42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The amendment filed on 6/22/2005 has been entered. Claims 10-12 and 18 have been canceled. Claims 1-9, 13-17, and 19-52 remain for examination.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 2876

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, 7-9, 13-17, 19-23, 26-29, 31-33, 37-41, drawn to the apparatus and method claims 43-52, are rejected under 35 U.S.C. 103(a) over Danielson et al. [herein after referred as Danielson – 6,138,915; cited previously] in view of Albertelli (Albertelli – USPGPUB 2002/0008139 A1; newly cited.)

Regarding claims 1 and 13, Danielson discloses a bar code reader comprising: one or more dimensional image arrays (13A and 13B of figure 13; 13Cs of 2D array 124C of figure 14) ; a lens assembly such as 90A, 90B, and 90C; and the method of reading the rows of pixel data in the manner as recited. It is noted that the mirror segments 82A-F are used to generate different focal planes for the optical reader [see figures 13-14 and their descriptions].

As can be seen, Danielson discloses the claimed invention except for the claimed single optical axis limitation as amended. However, this claimed limitation is not new.

Reference to Albertelli is cited as an evidence showing the conventionality of the method of designing a single optical axis design in place of a system in which multiple optical axes are being used. Specifically, Albertelli discloses that “Long focal length lenses at considerable distances from an object to be imaged have been used to restrict the relative change in resolution over a large change in object position along the optical axis but this can be impractical where space is a limitation and may require the use of multiple

path-folding mirrors of high optical quality which are expensive and ultimately reduce overall image quality because of surface irregularities.” (see paragraph 007).

It would have been obvious to replace the multiple axes type optical design as taught by Danielson with a single axis optical design. The modification is merely a substitution of an art recognized equivalent method which is well within the skill levels and expectations of an ordinary skilled artisan.

Regarding claim 2, Danielson discloses a bar code reader for reading bar code labels which thus would embrace all limitations set forth in this claim.

Regarding claim 3, Danielson discloses the use of the reader for reading 1D or 2D bar codes [see figure 27, and its descriptions].

Regarding claims 4, 14 and 17, Danielson discloses that the reader can perform scans from the range of 3 inches (see figure 18 and its descriptions) up to about 48 inches (see the descriptions of figure 46); and thus would embraces the limitations set forth in these claims.

Regarding claims 5 and 15, see the len assembly 90 of Danielson. Also see lens assembly 30 in figure 2. As can be seen, Danielson discloses the lens assembly and carrier which would embrace all limitations set forth in these claims.

Regarding claim 7, see the discussions above regarding claim 1.

Regarding claim 8, the optical system as taught by Danielson as discussed in claim 1 would embrace all limitations set forth in this claim.

Regarding claim 9, see the discussions regarding claim 1.

Art Unit: 2876

Regarding claim 16, see the discussions regarding claim 1 (especially see descriptions of figure 14 for the detail operations of the 2D sensor array 124C).

Regarding claims 19-20, see figures 13-14 of Danielson and the descriptions of figures 13-14.

Regarding claims 21-23, 25-29, 31-33, 37, all limitations have been addressed above.

Regarding claims 38-41, see the discussions regarding claim 1 above. Especially, in the descriptions of figure 14, Danielson discloses the method of selecting optical focal plane among the stored rows of outputs from the array sensor 124C.

Regarding claims 43-52, the system as taught by Danielson, as has been discussed, would embrace all method steps set forth in these claims.

Claims 6 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danielson et al. [referred as Danielson – 6,138,915; cited above] further in view of Hayashi (Hayashi – 6,540,361).

Regarding claims 6 and 30, the system as taught by Danielson has been discussed above. The claim differs in calling for a lens assembly that moves in the range of 0 $\mu$ m to 100 $\mu$ m. Reference to Hayashi is cited to show this claimed limitation. Accordingly, Hayashi discloses a lens 18 that is driven by actuator 19 as shown in Figure 16. Hayashi further discloses that the lens is moved in the range of 10  $\mu$ m to ten of micrometers; and thus would overlap the claimed range of movements. Without any unexpected results, modifying Danielson's system to include the teaching of Haysahi

would have been obvious. An ordinary skilled artisan would have been motivated to make the modification since moving the lens in such a manner would offers a high output that is suitable for high-speed driving as suggested by Hayashi.

### ***Allowable Subject Matter***

Claims 24, 34-36 and 42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior discloses an optical system comprising a lens assembly and mirror segments for producing a plurality of focal planes. However, the prior fails to disclose the claimed carrier comprising a plurality of segments as recited in claims 10-12. The prior also fails to disclose the first and the second carriers having the functions characteristics as recited in claims 24, 34-36, 42,

### **Remarks**

Applicant's arguments filed on 6/22/2005 have been fully considered but are not considered persuasive.

Applicant is noted that figure 14 of Danielson shows a two dimensional sensor array wherein the scanned beams are to focus on each line of the 2D sensor array. Though the entire image is focused onto each line of the CCD sensor array, the

Art Unit: 2876

examiner is of the view that would embrace the phrase "at least" a portion of the image or target area.

As to the lens assembly that moves in order to focus the scanned beam onto the sensors, see figures 1-2, 13 and 14 of Danielson.

As to the single optical axis limitation, see the newly cited reference to Albertelli and the grounds of rejection set forth in this Office Action.

For these reasons, the examiner respectfully maintains the grounds of rejection on claims 1-5, 7-9, 13-17, 19-23, 26-29, 31-33, 37-41, 6 and 30.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien M. Le whose telephone number is (571) 272-2396. The examiner can normally be reached on Monday - Friday from 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Le, Thien Minh**  
**Primary Examiner**  
**Art Unit 2876**  
**March 18, 2005**